Dublin City University
School of Computing

APPLICATION FOR APPROVAL OF AN UNDERGRADUATE OR TAUGHT MASTERS PROJECT INVOLVING **HUMAN PARTICIPANTS**

==**Please read the following information carefully before completing and submitting your application.**==

☐ **Applications must be submitted via the project dashboard**

☐ **Student applicants must include their supervisor as the Principal Investigator (PI).** The form should be checked, approved and signed in digital form by the supervisor in advance of submission.

☐ **The application should consist of <u>one electronic file only, in PDF format,</u>** with an electronic signature from the PI (the project supervisor) and yourselves, the students. The completed application must incorporate all supplementary documentation, especially those being given to the proposed participants.

☐ **All sections of the application form must be answered as instructed and within the word limits given.**

Applications must be completed on the form; answers in the form of attachments will not be accepted, except where indicated. No hardcopy applications will be accepted. **The project <u>must not</u> commence until approval has been received from the School Research Ethics Committee.**

PROJECT TITLE	Sentiment Analysis Online Chatbot
PRINCIPAL INVESTIGATOR(S) *The Principal Investigator is the project supervisor and s/he has primary responsibility for the project.*	Gareth Jones Adam Herd Jaime Kirk
START AND END DATE	Start: 18/01/2021 End: 7/05/2021
STUDENT NAME(S), COURSE AND YEAR (E.G. EC4)	Jaime Kirk, Adam Herd CA4
LEVEL OF RISK *Please confirm that this project requires notification only*	Notification only: YES

1. ADMINISTRATIVE DETAILS

1.1 WILL THE PROJECT BE UNDERTAKEN ON-SITE AT DUBLIN CITY UNIVERSITY?

YES or NO

No

If NO, state details of the off-campus location – provide details of the approval to gain access to that location in section 2.7.

The research will be undertaken on whatever machine the users can access in their homes. Due to Covid-19, the research cannot take place in any public setting.

DECLARATION BY PRINCIPAL INVESTIGATOR / SUPERVISOR

The information contained herein is, to the best of my knowledge and belief, accurate. I have read the University's current research ethics guidelines, and accept responsibility for the conduct of the procedures set out in the attached application in accordance with the form guidelines, the REC guidelines (https://www.dcu.ie/researchsupport/researchethics.shtml), the University's policy on Conflict of Interest, Code of Good Research Practice and any other condition laid down by the Dublin City University Research Ethics Committee. I have attempted to identify all risks related to the project that may arise in conducting this project and acknowledge my obligations and the rights of the participants.

If there exists any affiliation or financial interest for researcher(s) in this project or its outcomes or any other circumstances which might represent a perceived, potential or actual conflict of interest this should be declared in accordance with Dublin City University policy on Conflicts of Interest.

I and my co-investigators and/or supporting staff have the appropriate qualifications, experience and facilities to conduct the project set out in the attached application and to deal with any emergencies and contingencies related to the project that may arise. Supervisor(s) signature(s) are required as evidence that they have read and approve the submission.

Please note:
1. *Any amendments to the original approved proposal must receive prior School Ethics Committee approval.*

2. *As a condition of approval investigators are required to document and report immediately to the School of Computing Ethics Committee any adverse events, any issues which might negatively impact on the conduct of the project and/or any complaint from a participant relating to their participation in the study*

Electronic Signature(s):

Principal investigator / Supervisor: _____Gareth Jones_____

*Print Name(s) here:*_____Gareth Jones_____

Date: _20/04/2021_____

I/We, the students on this proposal, have read and approve this submission

*Student(s) signature(s):*_____Jaime Kirk Adam Herd _____

*Print Name(s) here:*_____Jaime Kirk Adam Herd_____

Date: _20/04/2021_____

2. PROJECT OUTLINE

2.1 LAY DESCRIPTION, AIMS & JUSTIFICATION, METHODOLOGY *(up to.100 words)*

Our project is an online chatbot that will allow a user to search for a product on Amazon.co.uk and acquire all kinds of different information about said product. The main feature of the chatbot is the ability to perform sentiment analysis on the reviews to get a different sense of what people are saying about the product, other than the star rating system Amazon provides. The analysis returns a bar chart/pie chart with the breakdown of how many reviews contained positive language and how many contained negative language. All of these calculations happen in the background, with the user just being presented with the final output. Due to the nature of this project, we will not be requiring any personal details from the users such as their names etc. The only information they will need to enter revolves around the product they wish to learn about and nothing else.

We are not trying to make an alternative to Amazon in any way. The main aim of this project is to learn more about sentiment analysis and machine learning as we have not done a lot on these topics in our course. Our knowledge of these areas prior to this project was extremely limited. Only basic lectures and discussions, no practical work. This project is thus a good, practical way to learn about these things. We've learned a great deal about machine learning in Python and also got familiar with some Javascript which wasn't a language used in any of our modules during this course.

Participants in our research will be asked to use our project to try and find information relating to products that they are interested in. Our user evaluation will seek feedback on such things as response time, ease of use, layout, readability etc.

Our main goal in the evaluation is to ensure that all features are working as they are meant to be. Also, participants may be able to spot any issues that we have not identified in developing the project. a fresh pair of eyes on the system may reveal things we have overlooked. Along with the general feedback, participants may also suggest any features that they think are missing or could improve the project. We are open to new ideas. All of this will help us make improvements to the project before the deadline and tweek any bugs or issues brought up by the participants.

Participants will be asked to search for a product of their choosing and then acquire various bits of information on said product. We will ask them to perform sentiment analysis, however, and see what the results of that are. They can request to see the overall rating of the product which can be compared with the sentiment analysis to see if they are similar. It should take no more than a handful of minutes for the users to achieve all of this on a single product. If they wish to search for more then after that they are more than welcome to.

An evaluation session will be concluded with a questionnaire. Completing the questionnaire will take no more than a few minutes. The goal is to gather their thoughts and opinions on the site and tasks they were given, any issues that arose, and anything they would change/add. It will be anonymous, meaning the user will not need to enter their name or any personal details. It will be done in the form of google's own Google forms on gmail. The questionnaire will be put into the Facebook group chat and random people will participate.

2.2 PARTICIPANT PROFILE

Participants will be other 4th year students at DCU. These participants will be chosen at random and all will be over the age of 18.

2.3 PARTICIPANT RECRUITMENT

Please provide specific details as to how you will be recruiting participants. How will people be informed that you are doing this research? How will they be approached and asked if they are willing to participate? If you are mailing or phoning people, please explain how you have obtained their names and contact details. If a recruitment advertisement is to be used, please ensure you attach a copy to this application (Approx. 100 words).

Contact will take place over the internet via Facebook messenger app. Students will be asked if they are willing to participate and we will recruit a selection of people who agree to participate.

Potential participants will be asked: Hi, would you be willing to take part in a quick evaluation of our 4th year project? It is a sentiment analysis chatbot where we will ask you to try out several different features of the chatbot. Participation is completely voluntary and you may stop participating at any time. Our plain language statement and consent form are also in the questionnaire for you to read. Thank you so much for your time.

If a student accepts, they will be sent a link to download the app and the evaluation can begin.

2.4I IS IT LIKELY THAT ANY PARTICIPANTS COULD BE CONSIDERED POTENTIALLY VULNERABLE?

Are some or all participants vulnerable in any way? (e.g by virtue of the group they belong to, people who have undergone traumatic or adverse emotional events, people with diminished cognitive ability, power relations between students and participants etc.)?

YES or NO
No

If Yes, please state and describe what this vulnerability (or vulnerabilities) is and justify why this research is being done with such participants

2.5 WILL THE IDENTITY OF THE PARTICIPANTS BE PROTECTED?

YES or NO
YES

If NO, please explain why

IF YOU ANSWERED YES TO 2.5, PLEASE ANSWER THE FOLLOWING QUESTION:

2.6 HOW WILL THE ANONYMITY OF THE PARTICIPANTS BE RESPECTED?

Please bear in mind that where the sample size is very small, it may be impossible to guarantee anonymity/confidentiality of participant identity. Participants involved in such projects need to be advised of this limitation in the Plain Language Statement/Information Sheet. If you intend to fully anonymize the data, please provide details

Our survey will be completely anonymous, and we will not ask for any names and have no intentions of revealing any names. Each user evaluation will be treated this way also with only the feedback from the user in our survey being recorded.

2.7 LEGAL LIMITATIONS TO DATA CONFIDENTIALITY

Participants need to be made aware that confidentiality of information provided cannot always be guaranteed by researchers and can only be protected within the limitations of the law - i.e., it is possible for data to be subject to subpoena, freedom of information claim or mandated reporting by some professions. This information should be included in your Plain Language Statement and Informed Consent Form. Depending on the project proposal and academic discipline, you may need to state additional specific limitations.

State how and where participants will be informed of these limitations

> Participants will be informed of this before they take the final questionnaire in a note at the beginning as well as before they begin the evaluation of the UI and also in the plain language statement.

2.8(a) EXPLAIN HOW PARTICIPANTS ARE TO BE RECRUITED

Please provide specific details as to how you will be recruiting participants. How will people be informed that you are doing this research? How will they be approached and asked if they are willing to participate? If you are e-mailing, mailing or phoning people, please explain how you have obtained their names and contact details. If a recruitment advertisement is to be used, please ensure you attach a copy to this application.

> Contact will take place over the internet via Facebook messenger app. Students will be asked if they are willing to participate and we will recruit a selection of people who agree to participate. The questionnaire will be placed in the group chat and all willing participants can use the link to access chatbot and the questionnaire.
>
> Potential participants will be asked: Hi, would you be willing to take part in a quick evaluation of our 4th year project? It is a sentiment analysis chatbot where we will ask you to try out several different features of the chatbot. Participation is completely voluntary and you may stop participating at any time. Our plain language statement and consent form are also in the questionnaire for you to read. Thank you so much for your time.
>
> There will then be a quick user test by performing a search for a product and testing multiple commands for the product then will be asked to end current search and search for a new product which will take a couple of minutes. Participants will fill out a quick questionnaire about the chatbot as they progress through the tasks giving their thoughts and opinions. We want to see if there are any bugs that we have missed if the chatbot is easy to use and if colours and contrasts are clear.
>
> The user will be asked to carry out
> If a student accepts, they will be sent a link to download the app and the evaluation can begin.

2.8(b) CHILD PARTICIPANTS (anyone under 18 years old)

*If your participants include children, you **must** confirm that you are in compliance with the research specific guidelines as detailed in "Keeping Children Safe - Policies and Procedures supporting Child Protection at DCU" - available at: https://www4.dcu.ie/sites/default/files/policy/157%20-%20child_protection_handbook_rev1%282%29%281%29.pdf*

Please indicate your compliance with the following guidelines:	**Mark here**
We confirm that we have read and agree to act in accordance with the DCU Child Protection policy and procedures	**N/A**
We confirm that we have put in place safeguards for the children participating in the project	**N/A**
We confirm that we have supports in place for children who may disclose current or historical abuse (whether or not this is the focus of the project)	**N/A**

2.9 PLEASE EXPLAIN WHEN, HOW, WHERE, AND TO WHOM RESULTS WILL BE DISSEMINATED, INCLUDING WHETHER PARTICIPANTS WILL BE PROVIDED WITH ANY INFORMATION AS TO THE FINDINGS OR OUTCOMES OF THE PROJECT?

> The results will be seen and used by the researchers only, this includes the students and supervisor. The results of this research will be used to improve the app and nothing more. Also staff with the appropriate rights under DCU's exam protocol may also see results if requested. Participants will not be provided any information as to the outcome of the project.

2.10 ARE OTHER APPROVALS REQUIRED TO GAIN ACCESS TO ANOTHER LOCATION, ORGANISATION, SCHOOL ETC.?

YES or NO
NO

If YES, please specify from whom and attach a copy of the approval documentation. If this is not yet available, please explain when this will be obtained.

3.   RISK AND RISK MANAGEMENT

3.1   EXPLAIN AND JUSTIFY THE STATED LEVEL OF RISK TO PARTICIPANTS

> The purpose of this research is to gather personal opinions from our participants about our project. We do not ask for any personal information or put our participants at risk in any physical, mental, social, legal or economic situations.

3.2   POTENTIAL RISKS TO PARTICIPANTS AND RISK MANAGEMENT PROCEDURES

Identify, as far as possible, all potential risks to participants (physical, psychological, social, legal, economic, etc.), associated with the proposed project. Will your project involve deception, investigation of participants involved in illegal activities, performance of any acts which might diminish the self-esteem of participants or cause them to experience embarrassment, regret or depression? Please explain what risk management procedures will be put in place to minimise these risks.

> We believe there is no risk to our participants as they will partake in an anonymous survey as well as a quick user test which is also anonymous. Participants will be asked not to use real personal information to use the chatbot so there is no way for us to identify what feedback they have returned and the form stays anonymous.

3.3   ARE THERE LIKELY TO BE ANY BENEFITS (DIRECT OR INDIRECT) TO PARTICIPANTS FROM THIS RESEARCH?

YES or NO
No

If YES, provide details

3.4   ARE THERE ANY SPECIFIC RISKS TO YOURSELVES IN CARRYING OUT THIS PROJECT?

Examples include use of dangerous materials, asking certain types of questions,The project being undertaken in certain locations, researchers working alone in isolated areas, etc.

YES or NO
No

If YES, please describe and explain what risk management procedures will be put in place to minimise these risks

3.5   DEALING WITH ADVERSE/UNEXPECTED OUTCOMES

Please describe what measures/protocols you have put in place in the event that there are any unexpected outcomes or adverse effects to participants arising from involvement in the project.

> While we do not expect any adverse or unexpected outcomes, should any arise the project supervisor will be contacted immediately. At this point the supervisor will adhere to any and all applicable DCU protocols and policies
>
> If any participant decides that they don't want to participate at any moment we will have a short list of backups to step in and take their place.

As for support in the face of adverse outcomes. In the event that a participant has a panic attack due to stress, then the study would cease and we would immediately get them the help they need. This would include a referral to the DCU Counselling and Personal Development Service.

3.6   SUPPORT FOR PARTICIPANTS

Depending on risks to participants you may need to consider having additional support for participants during/after the study. Consider whether your project would require additional support, e.g., external counselling available to participants. Please advise what support will be available.

We do not believe participants will require any additional support following our research.

3.7   HOW WILL THE CONDUCT OF THE PROJECT BE MONITORED?

Please explain how the principal investigator will monitor the conduct of the project (especially where several people are involved in recruiting or interviewing, administering procedures, etc.) to ensure that it conforms with the procedures set out in this application. In the case of student projects please give details of how the supervisor(s) will monitor the conduct of the project.

The supervisor is monitoring all phases of the project. They will be in contact with the other researchers at all times and will be on hand during the running of the study too.

3.8   DO YOU PROPOSE TO OFFER PAYMENTS OR INCENTIVES TO PARTICIPANTS?

YES or NO
Yes

If YES, please provide further details

While we will not offer money for participating, we will offer our own feedback on other students carrying out user tests for their own project.

3.9   DO ANY OF THE RESEARCHERS ON THIS PROJECT HAVE A PERSONAL, PHILOSOPHICAL, FINANCIAL, POLITICAL, IDEOLOGICAL, OR COMMERCIAL INTEREST IN ITS OUTCOME THAT MIGHT INFLUENCE THE INTEGRITY OF THE PROJECT OR BIAS THE CONDUCT OR REPORTING OF THE PROJECT, OR UNDULY DELAY OR OTHERWISE AFFECT THEIR PUBLICATION?

YES or NO
No

If YES, please specify how this conflict of interest will be addressed

4. PERSONAL DATA - COMPLIANCE WITH THE GENERAL DATA PROTECTION REGULATION (GDPR)

Applicant declaration:

0	**I understand that the proposed project, as set out in this form, is to be carried out by me in my capacity as a student of Dublin City University.**	YES or NO	Yes

What does "Personal Data" mean?

Personal data is any information about a living person, where that person is identified or could be identified, either from the data itself or when it is combined with other data.

Personal Data is defined in Article 4(1) of the GDPR and can include, but is not limited to the following: hard-copy information (e.g. files, records); electronic information (e.g. databases, online survey returns); written information; consent declarations, interview notes, still or moving images; audio & visual recordings; IP addresses; an individual's handwriting; clinical or medical data; diagnostic or other clinical imaging; etc.

Further information is available from the DCU Data Protection Unit

4.1   ASSESSING DATA PROTECTION RISKS & REQUIREMENTS

Note 1: What does 'Minor' and 'Vulnerable Individual' mean?

A **minor** is defined as an individual below 18 years of age. Where the processing relates to 'electronic marketing' the age limit is reduced to 16 years. A **vulnerable individual** may be anyone who is unable to consent to, or oppose, the processing of his or her personal data for any reason. Both of these are of particular importance if the project compels the provision of data from individuals.

Note 2: What does 'large scale processing' mean?

The GDPR does not define what constitutes large-scale. EU guidance recommends that the following factors, in particular, be considered when determining whether the processing is carried out on a large scale:
- the number of data subjects (either as a specific number or proportion of the relevant population);
- the volume of data and/or the range of different data items being processed;
- the duration, or permanence, of the data processing activity; &
- the geographical extent of the processing activity.

Examples of large-scale processing include, but are not limited to:
- processing of patient data in the regular course of business by a hospital;
- processing of travel data of individuals using a public transport system (e.g. tracking via travel cards);
- processing of real time geo-location data of customers of an international fast food chain for statistical purposes by a processor specialised in these activities;
- processing of customer data in the regular course of business by an insurance company or a bank;
- processing of personal data for behavioural advertising by a search engine; &
- processing of data (content, traffic, location) by telephone or internet service providers.

Examples that do **not** constitute large-scale processing include, but are not limited to:
- processing of patient data by an individual physician; and
- processing of personal data relating to criminal convictions and offences by an individual lawyer.

A. Applicant Data Protection Assessment Questionnaire – Part I			
1	Does your project include living human subjects?	YES or NO	Yes
2	Does your project include the use of any information (i.e. 'Personal Data') relating to an identified, or identifiable, person?	YES or NO	No

| 3 | Does your project include the use of identifiers such as: a name, an identification number, location data, an online identifier, or other similar identifiers? | YES or NO | No |
| 4 | Does your project include the use of Personal Data specific to the physical, physiological, genetic, mental, economic, cultural or social identity of any living individual? | YES or NO | No |

If you answered 'Yes' to one or more of Questions 1-4 above, please continue to Part II below (otherwise proceed to the next section of this form). You should also consult with your Supervisor / Principal Investigator to ensure adequate Data Protection compliance measures are in place.

B. Applicant Data Protection Assessment Questionnaire – Part II			
5(a)	Does your project include the use of Personal Data of individuals which reveals any of the attributes or characteristics below? If 'Yes,' please indicate which will be used in your project **(tick all that apply):**	YES or NO	No
	racial or ethnic origin	YES or NO	No
	political opinions	YES or NO	No
	religious or philosophical beliefs	YES or NO	No
	trade union membership	YES or NO	No
	genetic data	YES or NO	No
	biometric data	YES or NO	No
	data concerning health	YES or NO	No
	data concerning a natural person's sex life or sexual orientation	YES or NO	No
5(b)	Does your project include the use of Personal Data relating to minors or vulnerable individuals? *(See **Note 1**, below)*	YES or NO	No
6	Does your project include the use of Personal Data of individuals relating to their criminal convictions and/or offences?	YES or NO	No
7	Does your project include large-scale processing of personal data relating to living individuals? *This may include: a wide range or large volume of personal data; processing which takes place over a large geographical area; or where a large number of people are affected (e.g. over 100 individuals); or where the processing is extensive or has long-lasting effects. (See **Note 2**, below)*	YES or NO	No
8	Does your project include any form of automated processing of personal data, used to evaluate certain personal aspects relating to a living individual? *In particular, to analyse or predict aspects concerning that person's performance at work, economic situation, health, personal preferences, interests, reliability, behaviour, location or movements*	YES or NO	No
9	Does your project include any partners which are third parties outside of DCU? *e.g. Research partners, third party software providers or other providers such as translation or transcription services, etc.*	YES or NO	No

10 (a)	Does your project involve the sharing or processing of Personal Data outside the EU or the EEA? *i.e. the EEA is the European Economic Area (the EU plus Norway, Liechtenstein and Iceland)*	**YES or NO**	**No**
10 (b)	If 'Yes', please state which non-EU or EEA country is involved:		
11	Does the project require the matching or combining of separate datasets of information on individuals in a way that would exceed their reasonable expectations of privacy? *An example would be combining mobile phone location data along with any other dataset to identify individuals.*	**YES or NO**	**No**

If you answered 'Yes' to one or more of these questions, you should make sure that you have strong and secure data privacy risk mitigation safeguards in place, discuss these with your supervisor.

4.2   WILL ANONYMISATION OR PSEUDONYMISATION OF THE PERSONAL DATA, WHERE APPLICABLE, BE UNDERTAKEN?

Anonymisation is the process of removing personal identifiers, both direct and indirect, that may lead to an individual being identified. Pseudonymisation is the processing of personal data in such a manner that the personal data can no longer be attributed to a specific living individual without the use of additional information, provided that such additional information is kept separately and is subject to technical and organisational measures to ensure its security.

YES or NO
YES

If YES, please explain below the methods by which you intend to anonymise/pseudonymise the personal data:

The survey will be filled out and submitted anonymously so there is no way to tell who submitted the feedback

5.   DATA/SAMPLE STORAGE, SECURITY AND DISPOSAL

For the purpose of this section the term 'Data' includes personal data that is in a raw or a processed state (e.g. interview audiotape, transcript or analysis, etc.). The term 'Samples' include body fluids and/or tissue samples.

5.1   HOW AND WHERE WILL THE DATA/SAMPLES BE STORED?

DCU recommends that any data stored electronically offsite should utilise the DCU Google Drive. Alternative offsite storage will need to be justified and must meet data protection and GDPR compliance requirements.

The data sampled will be stored in each of our on an excel sheet which will include results from the google form. This will be stored on a DCU google drive.

5.2   WHO WILL HAVE ACCESS TO DATA/SAMPLES?

If people other than the main researchers have access, please name who they are and explain for what purpose.

No one other than those listed in this document will have access.

5.3   HOW LONG IS THE DATA TO BE HELD OR RETAINED?

Note that, with very few exceptions, Personal Data may not be retained indefinitely. It is up to the project team to establish an upper retention limit for each category of Personal Data used within the project and to ensure it is applied at the expiry of that limit. The School of Computing Research Ethics Committee recommends that Personal Data is retained until after the resit Pab for the current academic year.

The data will be stored for as long as is required under DCU's policy for data retention as it pertains to data/information relating to examinable material.

5.4   **IF YOUR PROJECT DOES INVOLVE THE USE OF PERSONAL DATA THEN WILL THIS BE USED AT A LATER DATE FOR THE PURPOSE OF PUBLICATION OF THE RESULTS OF THE PROJECT?**

YES or NO
NO

Where it is intended that the personal data used in the project will be used at a later date for the purposes of publication please explain how consent to do so will be obtained.

5.5   **IF THE DATA/SAMPLES ARE TO BE DISPOSED OF AT THE END OF THE PROJECT PLEASE EXPLAIN HOW, WHEN AND BY WHOM THIS WILL BE DONE?**

*Note that simply deleting files is not sufficiently secure. The additional steps to be taken to maintain data security should be given. **Personal data** must be disposed of in a safe and secure manner at the end of its retention period. If the data is stored in (a) a paper-based format, then shredding or disposal via a secure bin is recommended; or (b) in an electronic-based format, then deletion of the record or the full anonymization of the data is recommended. If data/samples are **not** being disposed of, please justify that intention.*

How will the data/samples be disposed of? Please describe the means by which the personal data will be deleted or destroyed. This includes personal data held in hard copy and digital formats.	The results stored in google drive will be wiped and any backups created will also be deleted. When assessment of our project is completed.
By whom will the data/samples be disposed? Please indicate the designated team member(s) with responsibility for deletion and/or destruction of the research project's personal data.	Jaime Kirk

6. PLAIN LANGUAGE STATEMENT *(Attach to this document. Up to a max of 400 words)*

PLEASE CONFIRM WHETHER THE FOLLOWING ISSUES HAVE BEEN ADDRESSED IN YOUR PLAIN LANGUAGE STATEMENT/ INFORMATION SHEET FOR PARTICIPANTS:
Note that this list is a check-list of all of the things that you should include in your plain language statement, if they are relevant (they are in most cases). In the earlier sections of this form you have already written the text that can be used to create your plain language statement. References to the relevant sections are provided on each line.

	YES or NO
Introductory Statement (Student(s) and supervisor names, school, title of the project) [Table, p 1]	YES
What is this project about? [section 2.1]	YES
Why is this project being conducted? [section 2.1]	YES
What will the participant be expected to do/have to do if they decide to participate in the study?[section 2.1]	YES
How will their privacy be protected? [section 2.5, section 2.6]	YES
How will the data be used and subsequently disposed of? [section 5.3]	YES
What are the legal limitations to data confidentiality? [section 2.7]	YES
Are there any benefits of taking part in the study? [section 3.3]	YES
Are there any risks of taking part in the study? [section 3.2]	YES
Confirmation that participants can change their mind at any stage and withdraw from the study [see plain language statement template, appendix 1]	YES
How will participants find out what happens with the project? [section 2.9]	YES
Contact details for further information [see plain language statement template, appendix 1]	YES
	YES

If any of these issues are marked NO, please justify their exclusion:

7. INFORMED CONSENT FORM *(Attach to this document. Approx. 300 words, see appendices 2 and 3 for templates.)*

NB – IF AN INFORMED CONSENT FORM IS NOT BEING USED, THE REASON FOR THIS MUST BE JUSTIFIED HERE.

8. ASSENT FORM & PLAIN LANGUAGE STATEMENT FOR CHILDREN *(Attach to this document.)*

9.   SUBMISSION CHECKLIST *(Attach to this document)*

Please confirm that all supplementary information is included in your application (in electronic copy). If questionnaire or interview questions are submitted in draft form, please indicate this by putting (draft) after YES. A copy of the final documentation must be submitted for final approval when available.

My application has been collated as one electronic PDF file which includes the following documentation:	INCLUDED (mark as YES)	NOT APPLICABLE (mark as N/A)
Recruitment advertisement [consistent with section 2.3]		N/A
Plain language statement/Information Statement [see section 6 and appendix 1]	**YES**	
Informed Consent form [see appendices 2 and 3]	**YES**	
Informed Assent form (children only)		N/A
Evidence of external approvals related to the research [see sections 1.1 and 2.10]		N/A
Questionnaire/Survey	**YES**	
Interview/Focus Group Questions		**N/A**

DUBLIN CITY UNIVERSITY
Plain Language Statement

The title of the project is a Sentiment Analysis Online Chatbot. The university involved in this is Dublin City University (DCU). The principal investigator is Gareth Jones (gareth.jones@dcu.ie) as well as two other investigators, Jaime Kirk, and Adam Herd.

We are conducting this research in the hopes of creating a chatbot which is accessible to all users. Our supervisor's name is Prof. Gareth Jones.

There will be no personal data collected for this research as the chatbot does not require the user to create an account to use it. The results of this result will be shared with no one, but the people listed in this form. The data sampled will be stored in each of our on an excel sheet which will include results from the google form. This will be stored on a DCU google drive. Participants will be free to withdraw if they are not comfortable giving this data. The DUC protections officer is listed here: · Mr. Martin Ward (data.protection@dcu.ie Ph: 7005118 / 7008257)

Participant involvement in our research is quite simple. Participants will take part in a user evaluation of our chatbot. This will be a quick user test by performing a search for a product and testing multiple commands for the product then will be asked to end current search and search for a new product which will take a couple of minutes. Following this, we will ask participants to fill out a quick questionnaire about the chatbot, their thoughts and opinion. We want to see if there are any bugs that we have missed if the chatbot is easy to use and if colours and contrasts are clear.

There are zero risks to participants in this research. Some benefits they might see is a chatbot which is free to use, very easy to use and offers a range of features to help them easily search for amazon products without having to scroll through multiple pages of search results.

We offer full anonymity within the confines of the law. The survey and interview do not give away any personal details of the participants and we don't intend to either outside of the data being seized by the law for any number of reasons. This means that we are legally limited by the law in the ways of confidentiality and cannot guarantee it. As stated, we offer anonymity within the confines of the law, however, data can be subject to subpoena, freedom of information claim etc.

The results stored in google drive will be wiped and any backups created will also be deleted when no longer necessary. This will occur on Friday 4th of June and will be done by Jaime Kirk.

We are only asking for people's involvement if they wish to participate. It is a completely voluntary study and if an individual feels they want to withdraw at any point then they may do so without question or penalty.

 You can contact the principal investigator, Adam Herd, the email is written above. If you wish to contact the REC (Research Ethics Committee) you can email them at rec@dcu.ie.

If participants have concerns about this study and wish to contact an independent person, please contact: The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000, e-mail rec@dcu.ie

Appendix 2
DUBLIN CITY UNIVERSITY

Informed Consent Form (approx. 300 words)

Research Study Title
Sentiment Analysis Online Chatbot. The college involved is DCU. The principal investigator is Professor Gareth Jones and the other investigators are Jaime Kirk and Adam Herd.

Clarification of the purpose of the research
I am aware that this research is solely to obtain feedback on the project and no other purposes.

Confirmation of particular requirements as highlighted in the Plain Language Statement
Requirements may include involvement in interviews, completion of questionnaire, audio / video-taping of events etc.. Getting the participant to acknowledge requirements is preferable, e.g.

Participant – please complete the following (Type YES or NO for each statement)
I have read the Plain Language Statement (or had it read to me) _____
I understand the information provided _____
I understand the information provided in relation to data protection _____
I have had an opportunity to ask questions and discuss this study _____
I have received satisfactory answers to all my questions _____

Confirmation that involvement in the Research Study is voluntary
I am aware that I may withdraw from this research at any point.

Confirmation of arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations
I understand that confidentiality of information is subject to legal limitations.

Confirmation of arrangements regarding the retention / disposal of data
I am aware that the data gathered will not be used in any further studies.

<u>Signature:</u>

I have read and understood the information in this form. My questions and concerns have been answered by the researchers, and I have a copy of this consent form. Therefore, I consent to take part in this research project

Participants Signature: _____

Name in Block Capitals: _____

Witness:_____

Date:_____

Here is the Survey that participants will take:

Amazon Chatbot Survey

Plain Language Statement (PLS)
The title of the project is a Sentiment Analysis Online Chatbot. The university involved in this is Dublin City University (DCU). The principal investigator is Gareth Jones (gareth.jones@dcu.ie) as well as two other investigators, Jaime Kirk, and Adam Herd.

We are conducting this research in the hopes of creating a chatbot which is accessible to all users. Our supervisor's name is Prof. Gareth Jones.

There will be no personal data collected for this research as the chatbot does not require the user to create an account to use it. The results of this result will be shared with no one, but the people listed in this form. The data sampled will be stored in each of our on an excel sheet which will include results from the google form. This will be stored on a DCU google drive. Participants will be free to withdraw if they are not comfortable giving this data. The DUC protections officer is listed here: · Mr. Martin Ward (data.protection@dcu.ie Ph: 7005118 / 7008257)

Participant involvement in our research is quite simple. Participants will take part in a user evaluation of our chatbot. This will be a quick user test by performing a search for a product and testing multiple commands for the product then will be asked to end current search and search for a new product which will take a couple of minutes. Following this, we will ask participants to fill out a quick questionnaire about the chatbot, their thoughts and opinion. We want to see if there are any bugs that we have missed if the chatbot is easy to use and if colours and contrasts are clear.

There are zero risks to participants in this research. Some benefits they might see is a chatbot which is free to use, very easy to use and offers a range of features to help them easily search for amazon products without having to scroll through multiple pages of search results.

We offer full anonymity within the confines of the law. The survey and interview do not give away any personal details of the participants and we don't intend to either outside of the data being seized by the law for any number of reasons. This means that we are legally limited by the law in the ways of confidentiality and cannot guarantee it. As stated, we offer anonymity within the confines of the law, however, data can be subject to subpoena, freedom of information claim etc.

The results stored in google drive will be wiped and any backups created will also be deleted when no longer necessary. This will occur on Friday 4th of June and will be done by Jaime Kirk.
We are only asking for people's involvement if they wish to participate. It is a completely voluntary study and if an individual feels they want to withdraw at any point then they may do so without question or penalty.
You can contact the principal investigator, Adam Herd, the email is written above. If you wish to contact the REC (Research Ethics Committee) you can email them at rec@dcu.ie.

If participants have concerns about this study and wish to contact an independent person, please contact: The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000, e-mail rec@dcu.ie

I have read the Plain Language Statement (or had it read to me) *

○ Yes

○ No

I understand the information provided *

○ Yes

○ No

I have had an opportunity to ask questions and discuss this study *

○ Yes

○ No

I understand the information provided in relation to data protection *

○ Yes

○ No

I have recieved satisfactory answers to all my questions *

○ Yes

○ No

I understand that I may withdraw from this study at any point *

○ Yes

○ No

I have read and understand the arrangements to be made to protect confidentiality of data, *
including that confidentiality of information provided is subject to legal limitations

○ Yes

○ No

I have read and understand confirmations relating to any other relevant information as indicated *
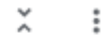in the PLS

○ Yes

○ No

I consent to participate in this research study *

○ Yes

○ No

About the Chatbot

Now we would like you to answer some question having used our project. You may be as detailed or succinct as you like.

Did you find the bot easy to use? *

◯ Yes

◯ No

◯ In between

What about it was easy to use? (if anything) *

Long-answer text

What about it was difficult to use? (if anything) *

Long-answer text

Were you able to find information on products?

◯ Yes

◯ No

Did the sentiment analysis work for you?

◯ Yes

◯ No

Is there anything you would change about it to improve it? *

Long-answer text

How would you rate your experience from 1-10? *

	1	2	3	4	5	6	7	8	9	10	
Poor	○	○	○	○	○	○	○	○	○	○	Excellent